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STATE OF BRUNEI

Annual Report on the Medical Department for the year 1937

BY

O. E. FISHER

*Medical Officer,
Brunei*

SINGAPORE :

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ANNUAL REPORT ON THE MEDICAL DEPARTMENT, BRUNEI FOR THE YEAR 1937

I.—INTRODUCTION

1. Brunei is a small sparsely populated state on the North Coast of Borneo some 2,500 square miles in area. It has a population of roughly 35,000 inhabitants.

The native population consists of Malays, Kedayans, Dusuns and other Bornean races. The Malays are chiefly fishermen whilst the Kedayans, etc. are the farmers.

The only alien race of numerical importance is the Chinese.

2. The Sultan of Brunei is the ruler of the State. By an agreement made in 1906 a British Resident was accepted whose advice must be asked and acted upon on all questions other than those concerning Mohammedan religion.

3. The only large centres of population are at Brunei Town, the Capital, with about 12,000 inhabitants and at Kuala Belait which is the centre of a rapidly expanding oilfield and which has a population of about 6,000. Motor transport is possible between the two centres partly by road and partly by beach. Elsewhere the rivers afford the chief means of transport.

4. Apart from the high infant mortality, to which further reference will be made, the general health of the State during the year under review was good. The only epidemics reported were an extensive outbreak of chicken-pox, and a mild outbreak of measles early in the year.

5. The Adviser, Medical Services, Malaya, Dr. R. D. FITZGERALD paid a visit to Brunei in April, and made important recommendations as to future extension of medical services in the State. These recommendations are already being carried out.

II.—ADMINISTRATION

6. The Medical and Health administration of the State is in the hands of one officer who is a member of the Malayan Medical Service seconded to Brunei.

The writer took over that post from Dr. W. G. EVANS in February.

The full establishment of the Department is given at Appendix I. In addition a sanitary inspector is on the establishment of the Assistant Resident at Kuala Belait.

7. Revenue collected by the Department in 1937 was \$3,172.30 and expenditure was \$44,452.05 compared with the figures of \$2,512.20 and \$42,108.79 respectively for 1936. In addition \$3,434.15 were expended on health work (anti-malarial work and sanitary inspector's salary) at Kuala Belait bringing the total expenditure to \$47,886.20 which represents 7.33% of the total State expenditure.

III.—HOSPITALS AND DISPENSARIES

8. In Brunei Town there is a small hospital of 30 beds with a well equipped theatre and out patient Department. During the year the medical store was enlarged and the theatre equipment largely augmented. The capacity of the hospital is to be increased in the near future. Two second class wards, of eight beds each, are already under construction, and an isolation ward is to be built shortly. There are two small dispensaries, each with a dresser-in-charge, in outlying parts of the State.

9. The rest of the population has to rely on the travelling dispensaries for medical attention. The travelling services were expanded during the year to include Ulu Tutong, the Berakas area and the islands at the mouth of the Brunei river. Practically the whole population can now receive medical service of a sort.

10. During 1937 six hundred and thirteen cases were admitted to hospital and 15,476 cases were treated as out patients compared with figures of 599 and 13,439 respectively for 1936.

Details of hospital attendances, surgical operations, etc. are given in Appendices VIII, IX and X.

IV.—CHILD WELFARE AND MATERNITY

11. The Department has been very active in the above work during the year. Six thousand five hundred and sixty-six cases attended the clinic in 1937 (14,659 attendances) compared with 4,330 in 1936 and 3,186 in 1935. These figures include ordinary female outpatients, but even so, it is evident that the service is becoming increasingly popular as the total population of the Brunei area is only about 12,000.

At the present time the welfare work is carried on together with the female out patients in a small room at the hospital. A separate building incorporating consulting rooms, feeding ward, etc. is, however, under construction. Extra officers are also being obtained so that a whole time staff may be engaged in this work.

12. That this extension is urgently necessary can be seen from a glance at the figures for infant mortality.

The infant mortality rate this year (219 per mille live births) although a reduction on last year (352 per mille), is still appallingly high. Large fluctuations are to be expected in figures dealing with a population as small as that of Brunei, and little significance can be attached to the big reduction shown this year. In any case welfare facilities are only available in the Brunei area which represents about one-third of the total population. The table below shows the figures for infantile mortality in Brunei and the rest of the State for the last four years.

<i>Year</i>		<i>Total Births</i>	<i>I. M. R. Whole State</i>	<i>I. M. R. Brunei area</i>	<i>I. M. R. Rest of State</i>
1934	...	1306	355	422	301
1935	...	1475	210	211	209
1936	...	1454	352	460	295
1937	...	1472	219	222	216

The high figures for the Brunei area are very largely due to the deficient diet of the women. The staple diet of the river kampong Malay is rice and fish. Vegetables are taken in small amounts whilst eggs, fruit, milk, etc. are rarely taken. Moreover, it is the custom for women to be put on to a severely restricted diet after confinement. Few of the women can therefore feed their babies satisfactorily, and their ignorance of correct artificial feeding is profound. For example, a popular food to give newly born infants is a paste of pounded rice and water. It is rare to see a well nourished infant in the river kampongs, and it is small wonder that over 40 per cent. of the total recorded deaths in the State occur in early infancy. Poverty is, of course, an important cause of this state of affairs, but ignorance is probably as important. Unfortunately in spite of the large numbers of infants and mothers now attending the clinic the majority merely want a bottle of medicine and not advice. However one hopes that progress is gradually being made, although one feels that in the absence of female education throughout the State, local prejudices and customs will largely handicap the work.

In the outlying rural part of the State no welfare work is yet possible, but here the figures are a little better owing to the somewhat better diet.

13. The maternity service continues to be popular and practically all births in the Brunei Town and river kampongs are attended by Government midwives. Altogether 501 births were attended by the Department; no maternal deaths occurred nor was there any case of puerperal sepsis.

14. Details of maternity and infant welfare work are given at Appendix III.

V.—PUBLIC HEALTH

(a) HOUSING

15. Most of the native population in the town of Brunei live in wooden huts raised on piles in the river. Overcrowding in these houses is marked, but apart from measles and chicken-pox, epidemic diseases are rare. Excreta and rubbish are disposed of directly into the river. The river is tidal and so provides an efficient water borne form of sanitation. The people, however, are gradually settling more and more on the land, but unfortunately they stick to their old habits although the salutary effect of the river is absent.

16. In the Sanitary Board areas of Brunei (which does not include the river population), Kuala Belait and Tutong, the respective Boards are responsible for all matters of housing, sanitation, etc.

(b) SANITATION

17. In the Sanitary Board areas the night-soil is collected in buckets and dumped into a convenient tidal river. The kampong houses on land remain a problem. In a few places bored hole latrines are suitable and twelve of these were provided by the Department during the year.

A number of houses in Brunei and Kuala Belait have their own water borne system.

(c) WATER SUPPLY

18. The river kampongs obtain their water from a number of hill streams *viâ* small gauge pipes overhanging the river. The Brunei Town supply is from the Tassek reservoir. The whole of the pipe lines from here have been relaid recently and the town has now an adequate supply.

By an agreement between the British Malayan Petroleum Company and the Government, Kuala Belait obtains its water from the Company.

Tutong is the only other centre in the State that has a piped water supply, the service having been provided this year.

Elsewhere water is obtained from shallow wells and streams.

(d) FOOD ANIMALS

19. All cattle, pigs, etc., slaughtered in Brunei and Kuala Belait are inspected before and after death by sanitary inspectors.

There are two slaughter houses in Brunei Town one for pigs and one for buffaloes and cattle. Both are unsatisfactory and are to be replaced by more modern buildings. During the year 631 pigs and 307 buffaloes, 36 cattle and 61 goats were slaughtered. Two pigs were rejected for slaughter on account of disease.

(e) PREVAILING DISEASES

(i) *Malaria*

20. There were ninety-seven cases of malaria treated at the Brunei hospital during the year, of whom sixteen probably contracted the disease outside the State. Subtertian parasites are most frequently found, but benign and quartan forms are also common.

21. Regular anti-malarial work is only possible at Brunei and Kuala Belait and both these centres are kept free from malaria. In Kuala Belait the work is in the hands of the Assistant Resident who acts on the advice of the oil company's medical officer.

There is also comparatively little malaria on the various rubber estates, but it is very common in the rice growing areas. The commonest anophelines found in the rice fields are *A. kochi*, *A. barbirostris*, and *A. leucosphyrus*.

The absence of *A. maculatus* may account for the relative immunity of the rubber estates.

Mosquito returns are given at Appendix VI.

22. All school children are examined annually for enlarged spleens, and treatment is given where necessary. Spleen rates are given at Appendix IV.

The rates vary from nil to 50 per cent. All rates higher than 10% were obtained from schools in padi growing areas. The rate for school children throughout the whole State was 6.37%.

(ii) *Bowel Diseases*

23. Apart from helminthic infections, bowel diseases do not appear to be common in spite of the primitive sanitary conditions in most parts of the State.

Five cases of dysentery were admitted to hospital of whom three had amoebic and two had the bacillary form. These figures do not, of course, give a true index of the disease as the Malay usually prefers to stay at home when he is suffering from a severe illness.

Two cases of typhoid and five cases of paratyphoid C. were treated.

(iii) *Helminths*

24. Roundworm infection is exceedingly common. All school children are examined annually for intestinal ova and mass treatment is given as a rule for ascaris.

Hookworm infection is much rarer.

Figures for school children are given at Appendix IV.

(iv) *Diphtheria*

25. One fatal case of diphtheria occurred at Kuala Belait. This is the first case of diphtheria ever reported in the State. Examination of close contacts failed to reveal any carrier.

(v) *Venereal Diseases*

26. Gonorrhœa of a mild type is exceedingly common. Prostatic smears of fifty consecutive male admissions to the Brunei hospital were taken as a matter of interest; eighteen of the cases yielded positive results, but only one of the eighteen had actually come into hospital for treatment of gonorrhœa. Complications are uncommon.

27. Syphilis, on the other hand, is rare, and the only cases seen so far, have contracted the diseases outside the State.

(vi) *Deficiency Diseases*

28. The poor diet of the average native and its relation to the high infantile mortality has been stressed in a preceding section. The diet could be much improved if plentiful supplies of cheap vegetables and native rice were available in the country. Unfortunately only a small section of the community are interested in agriculture and the methods of cultivation are primitive. The recent appointment of a European Agricultural Officer should, however, materially help to improve this state of affairs.

29. Hospital admissions for frank deficiency diseases shew a reduction on the 1936 figures. Twenty-four cases of beri-beri were treated in hospital in 1937 compared with sixty the year before. Of this number twelve were Chinese and twelve were natives. The natives came chiefly from estates in the interior where kampong rice and fresh vegetables were scarce.

One case of advanced vitamin A deficiency was admitted.

(vii) *Other Diseases*

30. Twenty-three cases of tuberculosis were treated in hospital during the year of whom twenty had the pulmonary form. The disease is common amongst the Chinese, and it also occurs in the natives, but how prevalent it is in the latter is not known.

31. Three new cases of active leprosy were discovered in Kuala Belait. Two of these were Chinese and one was Indian. Two of the cases almost

certainly contracted the disease outside the State, but the third, a Chinese boy of eight years, was born in Kuala Belait. In all cases contacts were examined and smears taken with negative results.

32. One case of tropical typhus of urban type was diagnosed.

(f) VITAL STATISTICS

33. The estimated population of the State on December 31st was 35,963. Births totalled 1,472 and deaths 772, giving a birth rate of 40.09 per mille and a crude death rate of 21.47 per mille. In 1936 the birth rate was 42.74 and the crude death rate 33.95. The infant mortality rate was 219 per thousand live births compared with the corresponding figure of 352 for 1936.

34. Apart from remote parts of the State, registration is probably fairly complete, and the large fluctuations in the general and infantile death rates are due to the smallness of the figures dealt with (*e.g.* births 1,472, deaths 772) rather than to incompleteness of registration.

35. Table 3 in Appendix V, showing deaths from principal causes, is unreliable as less than 10 per cent. of deaths are certified by medical practitioners.

VI.—ESTATES, Etc.

36. There are four European rubber estates in the country, and innumerable small native holdings. Records are only available of the European estates where regular inspections are carried out. The general health during the year was good, save on one estate where beri-beri was prevalent. This estate is in the interior and fresh food supplies have been inadequate. Steps have now been taken to ensure a regular supply of fresh fish, vegetables and kampong rice to this estate.

37. Estate labour consists largely of Brunei natives and is for the most part non-resident. The housing conditions of resident labour is satisfactory.

Three of the estates have their own dresser and dressing station, whilst the fourth sends its cases to the hospital in Brunei.

38. The largest employer of labour is the British Malayan Petroleum Company at Kuala Belait. This Company maintains a very well equipped hospital in charge of a Medical Officer. The Government has entered into an agreement with the Company whereby the medical services are made available to Government servants and natives. The Medical Officer also carries out certain duties as Health Officer of Kuala Belait. The cost of these services to Government for 1937 was \$3,451.96.

39. The Deputy Controller of Labour, Malaya, Mr. N. JONES, visited Brunei in December, and inspected labour conditions at all the large centres of employment.

VII.—METEOROLOGY

40. The climate is of the tropical marine type, and is characterised by a constant moist heat. The heat is usually tempered with a slight breeze, and apart from the monotony, the climate is not unpleasant.

The rainfall is high and varies from 100 inches or more at the coast to over 200 inches in certain parts of the interior.

There are no well marked seasons, but the rainfall is usually heaviest from October to the end of January during the period of the North-east monsoon.

Figures are given at Appendix XI.

O. E. FISHER,
Medical Officer,
Brunei.

MEDICAL DEPARTMENT,
BRUNEI, 22nd March, 1938.

APPENDIX I

STAFF OF THE MEDICAL DEPARTMENT, 1937

- (1) Medical Officer
- (2) Dresser, Grade I
- (3) Dressers, Grade II, two
- (4) Dressers, Grade III, five
- (5) Probationer Dresser, one
- (6) Clerk
- (7) Sanitary Inspector
- (8) Market Inspector
- (9) Mosquito Inspector
- (10) Health Nurse
- (11) Junior Nurse
- (12) Midwife
- (13) Apprentice Midwife
- (14) Male Attendants, five
- (15) Female Attendants, four
- (16) Peon
- (17) Cooks, four
- (18) Gardeners, two

APPENDIX II

				<i>Whole State</i>		<i>Medical Department</i>	
				\$	c.	\$	c.
Total Revenue	...	1,049,292	69				
Total Expenditure	...	653,149	15				
MEDICAL DEPARTMENT REVENUE 1937							
Sale of Medicines and Hospital Charges	...					3,172	30
MEDICAL DEPARTMENT EXPENDITURE 1937							
Personal Emoluments	...					22,284	04
Transport (including Travelling Dispensary)	...					1,477	81
Medicine and Instruments	...					4,949	52
Hospital Diets	...					3,013	27
Clothing and Laundry	...					611	29
Contingencies	...					387	60
Maintenance of Lunatics	...					735	46
Conservancy	...					2,729	08
Contribution to Belait Medical Services	...					3,451	96
Health Work	...					3,095	15
Special Services (unprovided)							
"Hospital Ward Equipment"	...					798	65
Special Services (unprovided)							
"New Hospital Equipment"	...					918	22
Total				...		44,452	05

APPENDIX III

TABLE I

*Annual return of the Women and Child-Welfare Clinic
for the year 1937*

<i>Diseases</i>				<i>No. of cases</i>
Infectious disease :				
(a) Malaria (all forms) ...	...	...	...	15
(b) Chicken pox ...	...	...	...	9
(c) Fever (unclassified) ...	...	...	...	271
(d) Yaws (all forms) ...	...	...	...	11
(e) Dysentery :				
(1) Amœbic ...	...	...	...	3
(2) Bacillary ...	...	...	...	14
(f) Tuberculosis :				
(1) Pulmonary ...	...	...	...	7
(g) Mumps ...	...	...	...	1
Nutritional disorders ...	...	...	...	154
Anæmia ...	...	...	...	515
Ear, eye, nose and throat :				
(a) Conjunctivitis (all forms) ...	...	...	...	69
(b) Tonsillitis ...	...	...	...	17
(c) Otorrhœa ...	...	...	...	22
Respiratory system :				
(a) Bronchitis ...	...	...	...	126
(b) Pneumonia ...	...	...	...	9
(c) Asthma ...	...	...	...	12
(d) Whooping cough ...	...	...	...	2
Gastro intestinal disorders ...	...	...	...	526
Helminthic infection :				
(a) Ascariasis ...	...	...	...	232
(b) Ankylostomiasis ...	...	...	...	9
(c) Other ...	...	...	...	89
Nervous disorders ...	...	...	...	11
Genito-urinary (non-venereal) ...	...	...	...	31
Venereal :				
(a) Gonorrhœa (all forms) ...	...	...	...	7
(b) Syphilis ...	...	...	...	2
Diseases of Women				
(a) Amenorrhœa ...	...	...	...	6
(b) Dysmenorrhœa ...	...	...	...	11
(c) Abortion ...	...	...	...	9
(d) Metrorrhagia ...	...	...	...	5
(e) Salpingitis ...	...	...	...	1
(f) Ectopic gestation ...	...	...	...	1
(g) Threatened abortion ...	...	...	...	1
(h) Fibroid of uterus ...	...	...	...	1
(i) Others ...	...	...	...	51
Violence (all forms) ...	...	...	...	184
Unclassified ...	...	...	...	4,132
Total			...	6,566
Total number of attendances			...	14,659

APPENDIX III—*continued*

TABLE 2

Record of Government Maternity Cases for 1937

Total number of Maternity cases attended by Government midwives	...	...	...	
Number of deliveries in hospital	...	...	...	25
Number of deliveries in homes	...	...	...	476
Full term live births	...	...	...	483
Premature live births	...	...	...	8
Full term still births	...	...	...	9
Premature still births	...	...	...	6
Pairs of twins	...	...	...	5
Abnormal presentations (all forms)	...	...	...	5
(a) Breech	...	...	...	2
(b) Occipito-posterior	...	...	...	2
(c) Shoulder (inverted into breech)	...	...	...	1
Malformations of babies (all forms)	...	...	...	2
Complications of labour (all forms)	...	...	...	9
(a) Ante-partum hæmorrhage	...	...	...	4
(b) Post partum hæmorrhage	...	...	...	4
(c) Pre-eclampsia	...	...	...	1
Puerperal fever	...	...	...	—
Maternal deaths	...	...	...	—
Ante-natal cases	...	...	...	120
Diseases occurring in Ante-natal period (all forms)	...	...	...	21
(a) Beri-beri	...	...	...	11
(b) Dysentery	...	...	...	2
(c) Toxemia	...	...	...	2
(d) Gonorrhœa	...	...	...	3
(e) Malaria	...	...	...	1
(f) Mammary abscess	...	...	...	1
(g) Pulmonary tuberculosis	...	...	...	1
Average weight of babies at birth	...	...	...	6¾ lbs.

TABLE 3

Table of Nationality of Maternity Cases

Brunei Malays	...	...	...	432
Chinese	...	...	...	43
European	...	...	...	1
Kedayan	...	...	...	5
Indian	...	...	...	4
Tutong	...	...	...	1
Javanese	...	...	...	2
Dusun	...	...	...	2
Other Malays	...	...	...	11
Total				501

APPENDIX IV

Table showing the results of Spleen and Stool examination of School Children in 1937

Place	Number examined	Palpable Spleen	Spleen Rate %	Number of Stools examined	Ascaris	Infection Rate %	Ankylostoma	Infection Rate %
Brunei ...	418	6	1.43	445	211	47.42	5	1.10
Gadong ...	35	17	48.57	32	24	75.00	2	6.25
Berakas ...	40	12	30.00	36	31	86.11	1	2.77
Kilanas ...	43	11	25.58	39	32	82.05	0	0
Sengkurong ...	40	13	32.50	40	35	87.50	2	5.00
Temburong ...	24	0	0	27	19	70.37	2	7.40
Labu ...	24	2	8.33	15	8	53.33	0	0
Muara ...	63	13	20.63	62	49	79.03	0	0
Tutong ...	74	2	2.70	70	37	52.85	0	0
Penanjong ...	23	0	0	26	22	84.61	0	0
Tumpuan Ogas ...	12	0	0	23	13	56.51	0	0
Tanjong Maya ...	60	0	0	62	34	54.83	0	0
Lubok Pulau ...	28	0	0	29	29	100.00	0	0
Okong ...	43	0	0	30	8	26.66	0	0
Belait ...	210	2	.95	161	42	26.08	1	.62
Labi ...	41	0	0	28	9	32.14	0	0
Bukit Sawat ...	13	1	7.69	0	0	0	0	0
Kuala Balai ...	20	0	0	20	4	20.00	0	0
Seria ...	30	0	0	18	4	22.22	0	0
Total ...	1,240	79	6.37	1,167	611	52.4	13	1.11

APPENDIX V

VITAL STATISTICS—TABLE I

Estimated population with birth and death rates

Year	Population	Births	Deaths	Birth-rate per mille	Death-rate per mille
1934	32,971	1,306	1,237	39.61	37.51
1935	33,732	1,475	802	43.70	23.78
1936	34,016	1,454	1,155	42.74	33.95
1937	35,963	1,472	772	40.09	21.47

APPENDIX V—continued

TABLE 2

Births registered according to sex and nationality

Europeans		Eurasians		Chinese		Malays		Indians		Native Bornean Races other than Malays		Others		Total		Total
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1	..	3	..	111	99	339	337	7	8	305	259	2	1	768	704	1,472

TABLE 3

Deaths from Principal Causes, year ending 31st December, 1937

Diseases				Male	Female	Total
Malaria	...	...	...	6	11	17
Diphtheria	...	...	...	1	—	1
Enteric fever	...	...	...	1	—	1
Dysentery	...	...	...	1	1	2
Influenza	...	...	...	—	—	—
Tuberculosis of respiratory system	...	...	...	10	8	18
Other forms of tuberculosis	...	...	...	—	1	1
Leprosy	...	...	...	—	—	—
Syphilis	...	...	...	—	—	—
Ankylostomiasis	...	...	...	—	—	—
Fever unspecified	...	...	...	3	4	7
Cancer	...	...	...	2	1	3
Beri-beri	...	...	...	3	4	7
Diseases of the heart	...	...	...	4	2	6
Other diseases of circulatory system	...	...	...	2	1	3
Bronchitis	...	...	...	1	1	2
Pneumonia (all forms)	...	...	...	7	2	9
Other diseases of respiratory system	...	...	...	2	6	8
Diarrhoea and enteritis	...	...	...	11	18	29
Other diseases of digestive system	...	...	...	21	11	32
Convulsions	...	...	...	26	28	54
Diseases of nervous system and sense organs	...	...	...	1	1	2
Non-venereal diseases of gent. urinary system	...	...	...	1	—	1
Diseases of pregnancy, child-birth and puerperal state	...	...	...	—	3	3
Premature birth and disease of early infancy	...	...	...	1	4	5
Old age	...	...	...	47	44	91
Violence (all forms)	...	...	...	2	1	3
Other causes (including unknown)	...	...	...	267	200	467
				420	352	772

APPENDIX V—continued

TABLE 4

Deaths grouped according to age, sex and nationality

Deaths by age groups			Sex	Europeans	Eurasians	Chinese	Malays	Indians	Native Bornean Races Other than Malays	Others	Total
0	...	...	M.	...	...	2	15	...	12	...	29
			F.	...	...	7	9	...	10	...	26
4	Weeks	...	M.	...	...	6	37	...	24	...	67
			F.	...	...	4	26	...	12	...	42
3	Months	...	M.	...	...	3	32	...	22	1	58
			F.	...	...	3	17	...	13	...	33
6	"	...	M.	...	...	3	19	...	15	...	37
			F.	...	...	2	18	...	10	...	30
1	Year	...	M.	...	...	4	20	1	20	...	45
			F.	...	...	2	13	...	19	...	34
5	Years	...	M.	...	...	...	1	...	6	...	7
			F.	...	...	1	8	1	10	...	20
10	"	...	M.	...	...	...	2	...	4	...	6
			F.	...	...	1	1	...	2	...	4
15	"	...	M.	...	...	1	5	...	4	...	10
			F.	...	...	1	3	...	3	...	7
20	"	...	M.	...	...	1	1	...	6	...	8
			F.	...	...	...	5	...	3	...	8
25	"	...	M.	...	...	1	2	...	4	...	7
			F.	...	...	1	1	...	5	...	7
30	"	...	M.	...	...	2	4	1	4	...	11
			F.	...	...	...	3	...	5	...	8
35	"	...	M.	...	...	1	7	2	5	...	15
			F.	...	...	2	7	...	6	...	15
40	"	...	M.	...	...	...	8	...	5	...	13
			F.	...	...	...	8	...	9	...	17
45	"	...	M.	...	...	...	3	...	6	...	9
			F.	...	...	...	6	...	2	...	8
50	"	...	M.	...	...	3	8	...	12	...	23
			F.	...	...	...	4	...	11	...	15
55	"	and over	M.	...	...	7	39	...	27	2	75
			F.	...	...	1	47	1	29	...	78
Deaths			M.	...	...	34	203	4	176	3	420
			F.	...	...	25	176	2	149	...	352
Total Deaths			M.F.	...	...	59	379	6	325	3	772

TABLE 5

Infantile mortality by months

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Total Births	Rate per 1,000 births
M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.		
27 15	10 13	5 6	10 4	13 8	13 8	21 9	15 12	15 10	16 9	18 15	28 22	191 131	1,472	219

APPENDIX V—continued

TABLE 6

Deaths registered as regards certification

Certified by Medical Practitioners	...	...	76
Certified by Registering Officers after death	...	...	229
Uncertified	...	...	467
Total			772

APPENDIX VI

LABORATORY RETURNS 1937

			<i>Brunei</i>	<i>Tutong</i>	<i>Tem- burong</i>
(1) Blood :					
<i>A</i> Films :—					
(a) Benign tertian	...	...	32	4	2
(b) Quartan	...	...	33	1	—
(c) Sub-tertian	...	...	68	1	1
(d) Mixed infection	...	...	4	—	—
(e) Negative	...	...	985	66	42
		Total	1,122	72	45
<i>B</i> Blood Counts	...	...	90	—	—
(2) Stools :					
(a) <i>Ankylostoma duodenale</i>	...	...	141	1	2
(b) <i>Ascaris lumbricoides</i>	...	...	591	164	19
(c) Mixed A.L.O. and A.D.O.	...	...	208	2	24
(d) <i>T. trichiura</i>	...	...	132	1	11
(e) <i>Strongyloides stercoralis</i>	...	...	132	—	—
(f) <i>Trichomonas hominis</i>	...	...	3	—	—
(g) <i>Entamœba hystolitica</i>	...	...	7	—	—
(h) <i>Entamœba coli</i>	...	...	—	1	—
(i) <i>Hymenolepis nana</i>	...	...	1	—	—
(j) Blood and pus cells	...	...	52	7	1
(k) Charcot-Leyden crystals	...	...	2	—	—
(l) Negative	...	...	691	256	—
		Total	1,960	432	57
(3) Sputum :					
(a) Tubercle bacilli	...	...	34	4	1
(b) Negative	...	...	174	2	4
		Total	208	6	5

APPENDIX VI—continued

LABORATORY RETURNS 1937—continued

				<i>Brunei</i>	<i>Tutong</i>	<i>Tem- burong</i>
(4) Urine :						
(a) Blood, pus and organisms	...	509	—	—		
(b) Casts (all forms)	...	39	—	—		
(c) Chemical test (various)	...	770	6	—		
(d) Urea concentration test	...	4	—	—		
(e) Negative	...	994	40	—		
Total	...	2,316	46	—		
(5) Bacteriological examination of smears :						
(a) Gonococci	...	51	—	—		
(b) Bacilli of Morax	...	17	—	—		
(c) Koch Weeks bacilli	...	27	—	—		
(d) Other bacteria	...	51	—	—		
(e) Negative	...	346	1	—		
Total	...	492	1	—		
(6) Cerebro-spinal fluid smears :						
(a) Tubercle bacilli	...	1	—	—		
(b) Negative	...	1	—	—		
(c) Cell counts	...	2	—	—		
Total	...	4	—	—		

APPENDIX VII

TABLE I

Record of Anopheline Larva within the Sanitary Board Area,

Months	A. koch.	A. barbi- rostris	A. hyrc- anus	A. leuco- sphyrus	A. umb- rosus	A. tes- selatus	A. sepa- ratus	A. Kar- wari	Total
January	89	30	...	...	...	...	...	...	119
February	43	32	...	...	...	...	...	...	75
March	26	88	17	...	...	...	...	...	131
April	38	187	...	93	...	...	...	...	318
May	12	117	6	...	19	7	28	...	189
June	16	128	30	13	...	17	...	...	204
July	...	607	...	...	...	14	...	...	621
August	9	717	...	44	17	25	...	...	812
September	129	750	...	56	31	25	...	95	1,086
October	644	295	...	...	19	...	...	...	958
November	369	118	...	65	37	17	37	...	643
December	289	220	...	15	103	45	...	...	672
Total	1,664	3,289	53	286	226	150	65	95	5,828

APPENDIX VII—continued

TABLE 2

Breeding places of Anopheline mosquitoes within Sanitary Board Area, Brunei

Months	Drains	Pools	Wells	Holes	Swamps	Seepages	Ponds	Total
January ...	4	1	1	...	...	...	...	6
February ...	2	1	1	1	...	...	...	5
March ...	2	3	2	1	...	...	...	8
April ...	3	9	4	...	1	...	...	17
May ...	3	4	...	3	1	1	...	12
June ...	4	6	1	...	1	1	...	13
July ...	6	9	...	...	1	...	...	16
August ...	5	7	2	1	1	...	...	16
September ...	3	5	2	1	1	...	1	13
October ...	4	2	2	3	1	1	1	14
November ...	5	6	3	2	2	...	...	18
December ...	8	5	3	...	...	...	...	16
Total ...	49	58	21	12	9	3	2	154

TABLE 3

Record of Anopheline Larva within the Sanitary Board Area, Brunei

Months	A. umbrosus	A. barbi-rostris	A. leucosphyrus	A. kochi	A. tessellatus	A. hyrcanus	A. separatus	Total
January ...	14	...	...	...	...	...	...	14
February ...	...	33	9	...	...	...	...	42
March ...	...	51	...	...	...	...	...	51
April ...	...	52	101	27	...	...	...	180
May ...	35	209	262	48	6	...	...	560
June ...	24	180	237	163	...	...	...	604
July ...	8	...	126	17	...	49	...	200
August ...	7	110	77	205	96	16	...	511
September ...	60	331	135	142	...	...	9	677
October ...	6	186	269	139	...	...	...	600
November ...	44	223	100	238	...	...	...	605
December ...	25	262	28	157	...	...	...	472
Total ...	223	1637	1344	1136	102	65	9	4,516

APPENDIX VII—continued

TABLE 4

Breeding places of Anopheline mosquitoes outside Sanitary Board Area, Brunei

Months	Swamps	Drains	Pools	Well	Holes	Seepages	Ponds	Total
January ...	1	...	...	...	...	...	...	1
February ...	1	1	1	...	...	...	...	3
March ...	...	1	1	...	...	...	...	2
April ...	2	1	2	9	...	...	...	14
May ...	1	10	7	6	3	1	...	28
June ...	...	3	12	4	5	...	...	24
July ...	...	4	3	6	2	...	...	15
August ...	2	3	1	5	2	1	...	14
September ...	...	3	3	6	1	...	...	13
October ...	...	3	5	2	2	...	...	12
November ...	...	4	4	2	...	1	1	12
December ...	1	2	2	6	1	...	...	12
Total ...	8	35	41	46	16	3	1	150

TABLE 5

Record of Anopheline Larva, Kuala Belait Area

Months	A. umbrosus	A. albotæ-niatus	A. separatus	A. brevip-alpis	A. bæzai	A. hakeri	A. tessellatus	A. novumb-rosus	Total
January ...	16	1	138	82	232	4	...	43	516
February ...	10	...	102	...	23	...	...	...	135
March ...	9	...	30	...	285	...	...	...	324
April ...	33	...	24	97	157	...	...	...	311
May ...	142	2	29	39	56	...	...	...	268
June ...	24	...	38	68	26	...	7	24	187
July ...	47	...	43	72	29	...	...	10	201
August ...	...	...	22	10	8	...	...	...	40
September ...	4	1	42	102	90	...	40	15	294
October ...	11	...	57	163	45	...	...	2	278
November ...	...	...	62	66	7	...	48	15	198
December ...	...	...	84	11	17	...	...	6	118
Total ...	296	4	671	710	975	4	95	115	2,870

APPENDIX VII—continued

TABLE 6

Breeding places of Anopheline mosquitoes in Kuala Belait Area

Months	Swamps	Streams	Tree-holes	Earth-drains	Pools	Nipah-swamps	Crab-holes	Holes	Wells	Drums	Total
January ...	26	1	1	...	...	...	...	...	...	...	28
February ...	11	1	1	...	...	...	...	...	...	...	13
March ...	24	6	...	3	1	...	...	...	...	...	34
April ...	1	6	1	...	5	16	1	...	...	...	30
May ...	4	8	...	...	6	5	...	...	...	...	23
June ...	16	...	...	...	3	...	...	2	...	...	21
July ...	...	6	...	...	...	10	...	...	...	...	16
August ...	6	2	...	...	...	...	...	...	...	...	8
September ...	15	2	...	1	...	...	...	...	1	1	20
October ...	15	1	...	1	1	...	...	...	...	...	18
November ...	12	1	...	...	...	...	...	...	...	...	13
December ...	6	1	...	...	...	...	...	...	...	...	7
Total ...	136	35	3	5	16	31	1	2	1	1	231

APPENDIX VIII

Annual return of Sick admitted to Government Hospital, Brunei, Tutong and Temburong

TABLE 1			BRUNEI		Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
Class		Specific Disease										
Infectious Diseases	...	Malaria fever b.t.	...	...	16	16	16	...	...	...	...	...
		Malaria fever s.t.	...	3	43	46	45	...	...	...	1	...
		Malaria fever quartan	...	...	12	12	11	...	...	...	...	1
		Malaria fever (mixed)	...	...	1	1	1	...	...	...	...	...
		Malaria fever (unclassified)	...	...	2	2	2	...	...	...	...	...
		Malarial cachexia	...	1	6	7	6	...	...	...	...	1
		Cerebral malaria (Triple infection)	...	...	1	1	1	...	...	...	...	...
		Influenza	...	...	32	32	32	...	...	...	...	...
		Typhoid fever	...	...	2	2	1	...	...	...	1	...
		Para typhoid fever	...	...	5	5	5	...	...	...	...	...
		Dengue	...	...	2	2	2	...	...	...	...	...
		Chicken pox	...	...	1	1	1	...	...	...	...	...
		Meningitis	...	...	2	2	...	...	...	...	2	...
		Parotitis	...	...	1	1	1	...	...	...	...	...
		Tertiary yaws	...	...	1	1	1	...	...	...	...	...
General Disease	...	Avitaminosis	...	...	3	3	3	...	...	...	...	...
		Rickets	...	1	...	1	1	...	...	...	...	...
		Malnutrition	...	...	3	3	3	...	...	...	...	...
		Infantile beri-beri	...	...	1	1	1	...	...	...	...	...
		Beri-beri	...	1	15	16	14	...	...	...	...	2
Carried forward			...	6	149	155	147	...	...	4	4	

APPENDIX VIII—continued

TABLE 1		BRUNEI								
Class	Specific disease	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining	
	<i>Brought forward</i> ...	6	149	155	147	...	...	4	4	
General Disease.— <i>cont.</i>	Prematurity ...	...	2	2	1	...	...	1	...	
	Secondary anæmia ...	...	2	2	1	...	1	...	...	
	Lymphosarcoma ...	...	1	1	1	...	...	...	...	
	Diabetes mellitus ...	...	1	1	1	...	...	...	...	
Nervous System ...	Amentia ...	...	1	1	1	...	...	...	...	
	Senile dementia ..	1	...	1	...	...	...	...	1	
	Melancholia ...	1	1	2	2	...	...	...	...	
	Confusional insanity ...	1	1	2	2	...	...	...	...	
	Dementia præcox ...	...	1	1	1	...	...	...	...	
	Acute mania ...	...	2	2	1	...	...	1	...	
	Psychosis ...	...	7	7	5	...	2	...	...	
	Epilepsy ...	...	2	2	2	...	...	...	...	
	Opium habit .	1	2	3	3	...	...	...	...	
	Tuberculous meningitis ...	...	2	2	...	...	...	2	...	
Circulatory System ...	Cardiac beri beri ...	...	2	2	...	...	...	2	...	
	Valvular disease of heart	1	...	1	1	...	...	...	...	
	Arteriosclerosis ...	...	1	1	...	...	...	1	...	
	Thrombosis ...	...	1	1	1	...	...	...	...	
	Aortic incompetence ...	...	1	1	1	...	...	...	...	
	Hæmorrhoids ...	...	1	1	1	...	...	...	...	
	Embolus of femoral artery, gangrene of right leg ...	...	2	2	1	...	...	1	...	
	Cerebral hæmorrhage ..	...	1	1	1	...	...	...	...	
Ear, Eye, Nose and Throat ...	Bilateral cataract ...	...	2	2	2	...	...	...	...	
	Grannlomatous conjuncti- vitis ...	...	1	1	1	...	...	...	...	
	Conjunctivitis K.W. ...	...	11	11	11	...	...	...	...	
	Corneal ulcer ...	...	3	3	2	...	...	...	1	
	Pterygium ...	...	1	1	1	...	...	...	...	
	Chronic conjunctivitis and trichiasis ...	...	1	1	1	...	...	...	...	
	Nasal polypi ...	...	1	1	1	...	...	...	...	
	Acute frontal sinusitis ...	...	1	1	1	...	...	...	...	
	Tonsillitis ...	...	2	2	2	...	...	...	...	
	Respiratory System ...	Broncho pneumonia ...	1	...	1	1	...	...	...	...
Pneumonia ...		...	1	1	1	...	...	...	...	
Asthma ...		...	6	6	6	...	...	...	...	
Pulmonary tuberculosis ...		1	17	18	13	...	...	3	2	
Pleural effusion ...		...	1	1	1	...	...	...	...	
Tuberculous abscess of sternum ...		...	1	1	1	...	...	...	...	
Hæmoptysis ...		...	1	1	...	...	...	...	1	
Whooping cough ...		...	1	1	1	...	...	...	...	
Bronchitis ...		...	6	6	6	...	...	...	...	
Bronchiectasis ...		...	1	1	1	...	...	...	...	
	<i>Carried forward</i> ...	13	241	254	227	...	3	15	9	

APPENDIX VIII—continued

TABLE 1		BRUNEI								
Class		Specific Disease	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
		<i>Brought forward</i> ...	13	241	254	227	...	3	15	9
Venereal Disease	...	Gonorrhœal urethritis ...	...	3	3	3	...	...	...	...
		Gonorrhœal arthritis ...	...	4	4	4	...	...	...	...
		Gonorrhœal epididymitis ...	...	3	3	2	...	...	...	1
		Gonorrhœal cervicitis ...	...	3	3	2	...	...	...	1
Digestive System	...	Gonorrhœal conjunctivitis ...	...	1	1	1	...	...	...	...
		Ascariasis ...	...	25	25	25	...	...	...	...
		Ankylostomiasis ...	3	29	32	31	...	1	...	...
		Oxyuris vermicularis ...	...	1	1	1	...	...	...	...
	Hymenolepis nana ...	...	...	1	1	1	...	...	...	...
	Amœbic dysentery ...	...	...	3	3	2	...	...	1	...
	Bacillary dysentery ...	...	...	2	2	1	...	...	1	...
	Ascites ..	...	...	1	1	1	...	...	...	...
	Gastro enteritis ...	...	...	14	14	11	...	...	3	...
	Chronic gastritis ...	...	...	2	2	2	...	...	...	...
	Constipation ...	...	...	1	1	1	...	...	...	...
	Acute appendicitis ...	...	...	1	1	1	...	...	...	...
	Chronic appendicitis ...	...	...	1	1	1	...	...	...	..
	Intestinal colic ...	...	...	1	1	1	...	...	...	...
	Cancer of anus ...	...	1	...	1	1	...	...	...	...
	Sarcoma of liver ...	...	...	1	1	...	...	...	...	1
	Carcinoma of stomach ...	...	...	2	2	1	...	...	...	1
	Hæmatemesis ...	...	...	1	1	1	...	...	...	...
	Submaxillary calculus ...	...	...	2	2	1	...	...	...	1
	Catarrhal jaundice ...	...	...	2	2	2	...	...	...	...
	Perforated duodenal ulcer ...	...	...	1	1	1	...	...	...	...
	Gastric ulcer ...	...	...	2	2	1	...	...	1	...
	Pyloric stenosis; carcinoma									
	ventriculi ...	...	...	1	1	1	...	...	...	..
	Flatulent dyspepsia ...	...	...	1	1	1	...	...	...	...
	Acute hepatitis ...	...	...	1	1	1	...	...	...	...
	Abdominal tuberculosis ...	...	...	1	1	1	...	...	...	...
	Inguinal hernia ...	...	...	3	3	3	...	...	...	...
	Alveclar abscess (septi-									
	caemia) ...	...	...	1	1	...	...	...	1	...
Genito-Urinary System	Dental caries, apical									
	abscess ...	...	...	2	2	2	...	...	...	...
	Nephritis ...	...	...	4	4	4	...	...	...	...
	Renal calculus ...	...	...	1	1	1	...	...	...	...
	Pyelitis ...	...	...	1	1	1	...	...	...	...
	Renal colic ...	...	...	2	2	2	...	...	...	...
	Hydrocele ...	...	...	1	1	1	...	...	...	...
	Vesical calculus ...	...	...	2	2	2	...	...	...	...
	Phimosis ...	...	...	2	2	2	...	...	...	...
	Chronic cystitis ...	...	...	3	3	3	...	...	...	...
Disease of Women	...	Stricture urethra ...	...	...	1	1	1	...	...	...
		Amenorrhœa ...	...	...	1	1	1	...	...	...
		Retroverted uterus ...	...	...	1	1	1	...	..	...
		Threatened abortion ...	...	...	1	1	1	...	...	...
	Incomplete abortion ...	...	...	1	1	1	...	...	...	...
	Ante partum hæmorrhage ...	...	...	1	1	1	...	...	...	...
	Toxemia of pregnancy ...	...	...	2	2	2	...	...	...	...
		<i>Carried forward</i> ...	17	382	399	359	...	4	22	14

APPENDIX VIII—continued

TABLE 1		BRUNEI										
Class		Specific diseases		Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining	
		<i>Brought forward</i> ...		17	382	399	359	...	4	22	14	
Disease of Women	...	Acute salpingitis ...	...	...	1	1	1	...	...	...	...	
		Parturition ...	...	...	25	25	23	..	...	...	2	
		Breast abscess ...	...	...	2	2	2	...	...	...	...	
		Carcinoma of uterus ...	...	...	1	1	...	...	...	...	1	
		Metrorrhagia ...	..	...	1	1	1	...	...	...	...	
		Acute mastitis ...	...	...	1	1	1	...	..	...	..	
		Cervical erosion ...	...	...	3	3	3	...	...	...	...	
		Multilocular ovarian cyst ...	...	...	1	1	1	...	...	...	...	
		Ruptured ectopic gestation ...	...	...	1	1	1	..	...	...	...	
		Uterine fibroids ...	...	...	2	2	2	..	...	...	...	
Bones and Joints	...	Puerperal insanity ...	...	...	1	1	1	...	...	...	...	
		Pyosalpinx ...	...	...	1	1	1	...	...	...	...	
		Tuberculous hip joint ...	...	1	...	1	1	...	...	...	...	
		Synovitis ...	...	...	1	1	1	...	...	...	...	
Skin and Cellular Tissue		Angioma of frontal bone ...	...	...	1	1	1	...	...	...	..	
		Simple fracture ...	..	...	1	1	1	...	...	...	...	
		Acute adenitis ...	..	..	1	1	1	...	...	...	...	
		Abscess ...	..	1	26	27	26	...	...	...	1	
		Boil ...	...	...	4	4	4	...	..	...	...	
		Cellulitis ...	...	1	2	3	3	...	...	...	...	
		Carbuncle ...	...	...	1	1	1	...	...	...	...	
		Chalazion ...	...	...	1	1	1	...	...	...	...	
		Exogenic dermatitis ...	...	...	4	4	3	...	...	...	1	
		Carcinoma lip ...	...	...	2	2	1	...	...	...	1	
		Angioneuratic oedema ...	...	...	1	1	1	...	...	...	...	
		Keloid ...	...	...	2	2	2	...	...	...	...	
		“Singapore” foot ...	...	...	1	1	1	...	...	...	...	
		Scabies ...	...	...	1	1	1	...	...	...	...	
		Fibrositis ...	...	...	...	2	2	2	...	...	...	...
		Erysipelas ...	...	...	...	1	1	1	...	...	...	...
		Eczema ...	...	...	...	3	3	3	...	...	...	...
		Ulcer ...	...	...	...	5	5	5	...	...	...	..
		Dermoid cyst ...	...	...	...	4	4	4	...	...	...	...
		Sebaceous cyst ...	...	...	...	1	1	1	...	...	...	...
		Painful scar ...	...	...	...	1	1	1	...	...	...	...
		Perforating ulcer ...	...	...	...	1	1	1	...	...	...	...
		Tinea imbricata ...	...	3	2	5	4	...	...	...	...	...
	External Causes	...	Warts ...	...	...	1	1	...	...	...	...	1
			Burn ...	...	...	2	2	2	...	...	...	...
			Constipation ...	...	...	2	2	2	...	...	...	...
			Ruptured urethra ...	...	...	1	1	1	...	...	...	...
			Sprain ...	...	...	4	4	4	...	...	...	...
			Gun shot wound ...	...	1	...	1	1	...	...	...	...
			Wounds ...	...	...	9	9	9	...	...	..	...
			Insect bite ...	...	..	2	2	2	...	...	...	...
			Foreign body in foot ...	...	...	2	2	2	...	...	...	...
			Homicidal wounding ...	...	...	1	1	1	...	...	...	...
	Undefined Disease	...	Corrosive poisoning, oedema of glottis ...	...	...	1	1	1	...	...	...	...
		Observation ...	...	1	27	28	28	...	..	...	...	
		Weaning ...	...	...	2	2	1	...	...	...	1	
		Debility ...	...	...	8	8	7	...	...	...	1	
		Total ...		25	553	578	528	...	4	22	23	

APPENDIX VIII—continued

TABLE 2				TUTONG									
Class				Specific Disease	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining	
Infectious Disease	...		...	Malaria fever s.t.	...	1	1	1	...	...	...	...	
				Mumps	...	3	3	3	...	...	...	...	
				Influenza	...	1	1	1	...	...	...	...	
				Yaw, primary	...	1	1	1	...	...	...	...	
General Disease	...		...	Beri-beri	...	4	4	2	2	...	...	...	
Ear, Eye, Nose and Throat	...		...	Tonsillitis	...	1	1	1	...	...	...	...	
Respiratory System	...		...	Asthma	...	1	1	1	...	...	...	...	
Digestive System	...		...	Ascites	...	1	1	1	...	...	...	...	
				Ascariasis and gastritis	...	1	1	1	...	...	...	...	
				Bacillary dysentery	...	1	1	1	...	...	...	...	
				Chronic gastric ulcer	...	1	1	...	1	...	...	...	
Genito Urin. System	...		...	Renal Calculus	...	1	1	...	1	...	...	...	
Disease of women	...		...	Puerperal insanity	...	1	1	...	1	...	...	...	
Skin and Cell. Tissues...			...	Abscess	...	2	2	2	...	...	...	...	
				Eczema	...	1	1	1	...	...	...	...	
				Gangrene foot	...	1	1	...	1	...	...	...	
				Ulcer	...	2	2	2	...	...	...	...	
				Tinea imbricata	...	1	4	5	4	...	...	...	1
External Causes	...		...	Contusion	...	1	1	1	...	...	...	...	
				Fractured rib	...	1	1	...	1	...	...	...	
				Sprain	...	2	2	2	...	...	...	...	
				Wound	...	1	1	1	...	...	...	...	
				Crocodile bite	...	1	1	1	...	...	...	...	
Undefined disease	...		...	Observation	...	1	...	1	...	...	...	1	
				Total	...	2	34	36	27	7	...	...	2

TABLE 3				TEMBURONG									
Infectious Disease	...		...	Influenza	...	6	6	5	...	...	...	1	
General Disease	...		...	Beri-beri	...	1	3	4	4	...	...	...	
Ear, Eye, Nose and Throat	...		...	Conjunctivitis	...	1	1	1	...	...	...	...	
Digestive System	...		...	Dysentary amœbic	...	1	1	...	1	...	...	...	
Respiratory System	...		...	Asthma	...	2	2	2	...	...	...	...	
				Pulmonary tuberculosis	...	1	1	...	1	...	...	...	
				Pneumonia	...	1	1	1	...	...	...	...	
Skin and Cell. Tissues ..			...	Abscess	...	3	3	3	...	...	...	...	
				Chronic ulcer	...	1	1	1	...	...	...	...	
				Eczema	...	1	1	1	...	...	...	...	
				Tinea imbricat	...	1	1	1	...	...	...	...	
External Causes	...		...	Wound	...	4	4	2	1	...	...	1	
				Total	...	1	25	26	21	3	...	...	2

APPENDIX IX

RETURN OF OPERATIONS PERFORMED DURING 1937

Operations	Number	RESULT		Died
		Cured	Relieved	
A.—General :				
Suture of wounds ...	99	99	—	—
Incision for suppuration ...	53	52	—	I
Removal of foreign body ...	4	4	—	—
Amputation thumb ...	I	I	—	—
For ascites ...	5	—	5	—
Ruptured urethra ...	I	I	—	—
Exploration of chest, etc. ...	14	—	14	—
Removal of cysts, etc ...	21	21	—	—
Amputation thigh ...	I	—	—	I
Circumcision ...	7	7	—	—
For hydrocele ...	I	—	I	—
Hydrocele, radical cure ...	I	I	—	—
Appendicectomy ...	2	2	—	—
Gastro enterostomy ...	I	—	I	—
Perforated duodenal ulcer ...	I	I	—	—
Herniotomy ...	3	3	—	—
Suprapubic lithotomy ...	2	2	—	—
Laparotomy ...	I	—	I	—
Manipulation of fracture ...	2	2	—	—
Angioma of head ...	I	I	—	—
For hæmatoma ...	I	I	—	—
Excision of epithelioma of lip ...	I	—	I	—
Blood transfusion ...	I	I	—	—
B.—Special :				
(1) Ear, nose and throat :—				
Repairing ear lobes ...	2	2	—	—
Removal of nasal polypus ...	2	—	2	—
Tonsillectomy ...	I	I	—	—
(2) Gynæcological :				
Ovariectomy ...	I	I	—	—
Hysterectomy ...	2	2	—	—
Ruptured ectopic gestation ...	I	I	—	—
Incomplete abortion ...	I	I	—	—
Internal version ...	I	I	—	—
(3) Dental :				
Extraction ...	285	285	—	—
Alveolar abscess (Septicæmia) ...	I	—	—	I
Total ...	521	493	25	3

APPENDIX X

ANNUAL RETURN OF OUTPATIENTS, BRUNEI GOVERNMENT HOSPITAL, 1937

<i>Disease</i>		<i>Brunei Tutong Temburong</i>			
Infectious disease :					
(a) Malaria (all forms)	...	...	361	33	64
(b) Yaws (all forms)	...	...	17	12	80
(c) Chicken pox	...	...	41	1	—
(d) Mumps	...	...	14	5	—
(e) Tropical typhus	...	...	1	—	—
(f) Dysentery :					
(1) Amœbic	...	...	1	—	—
(2) Bacillary	...	...	2	4	2
(g) Tuberculosis :					
(1) Pulmonary	...	...	23	5	1
(2) Other	...	...	5	—	—
(h) Pneumonia (all forms)	...	...	—	1	—
Venereal disease :					
(a) Gonorrhœa (all forms)	...	...	28	4	—
(b) Syphilis (all forms)	...	...	—	—	—
Helminthic infection :					
(a) Ascariasis	...	...	939	553	88
(b) Ankylostomiasis	...	...	24	1	2
Respiratory disease	...	...	986	341	308
Circulatory disease :					
(a) Myocarditis	...	...	1	—	—
(b) Heart failure	...	...	—	—	2
(c) Other	...	...	5	1	—
Gastro intestinal disease :					
(a) Gastric ulcer	...	...	4	—	—
(b) Other	...	...	1,624	633	300
Genito urinary (non-venereal)	...	...	53	7	—
Disease of women :					
(a) Tubal abortion	...	...	1	—	—
(b) Abortion	...	...	—	5	—
(c) Parturition	...	...	16	8	3
(d) Menorrhagia	...	...	1	—	—
(e) Other	...	...	1	—	—
Violence (all forms)	...	...	1,457	240	256
Diseases of skins, etc., etc.	...	...	4,214	1,699	998
Total		...	9,819	3,553	2,104
Total number of attendances		...	20,436	4,964	3,038

APPENDIX XI

METEOROLOGY 1937

TABLE I

Mean room Temperature at Brunei, Tutong and Temburong Hospitals

Month			BRUNEI			TUTONG			TEMBURONG		
			Maximum	Minimum	Range	Maximum	Minimum	Range	Maximum	Minimum	Range
January	...	...	85.23	76.26	8.97	84.41	74.61	9.80	84.65	73.94	10.71
February	...	...	85.36	76.57	8.79	84.50	75.25	9.25	84.71	73.96	10.75
March	...	...	86.61	76.83	9.78	86.74	75.29	11.45	86.61	75.19	11.42
April	...	...	87.03	77.40	9.63	87.06	75.07	11.99	87.27	75.63	11.64
May	...	...	87.19	77.52	9.67	86.90	75.38	11.52	87.42	75.58	11.84
June	...	...	87.07	76.70	10.37	87.01	74.90	12.11	88.07	75.17	12.90
July	...	...	87.10	76.58	10.52	86.93	74.74	12.19	87.87	74.97	12.90
August	...	...	86.65	76.55	10.10	87.45	75.16	12.29	88.35	74.39	13.96
September	...	...	84.03	76.77	7.26	86.41	75.31	12.10	84.43	74.47	9.96
October	...	...	84.06	76.19	7.87	84.25	74.45	9.80	86.42	74.81	11.61
November	...	...	86.00	75.90	10.10	85.40	74.20	11.20	86.27	74.77	11.50
December	...	..	85.52	75.39	6.13	84.19	74.09	10.10	85.06	73.94	11.12
Mean	...	...	85.99	76.56	9.99	85.94	74.79	11.15	86.43	74.74	11.69

TABLE 2

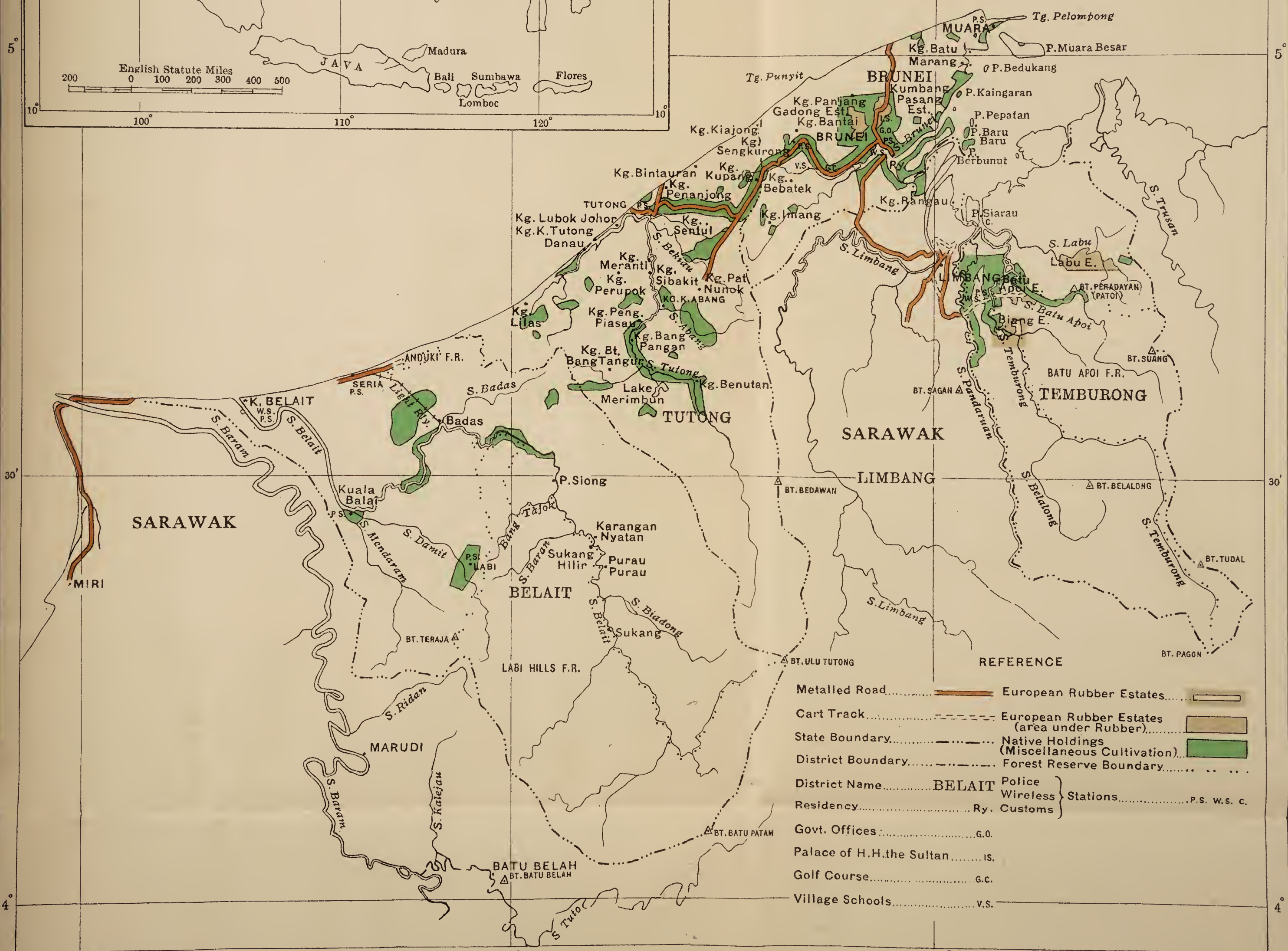
Monthly rainfall at eight Stations

Month			BRUNEI DISTRICT				TEMBURONG DISTRICT			BELAIT DISTRICT
			Govt. Hosp. Brunei Town	Subok	Gadong	Kumbang Pasang	Labu	Biang	Batu Apoi	Belait B.M.P. Company
January	...	...	28.18	21.99	22.96	29.41	37.16	25.51	12.76	20.85
February	...	...	6.22	5.28	4.68	3.93	5.90	9.91	.36	9.85
March	...	...	8.80	7.77	6.99	8.30	14.83	17.90	5.08	2.45
April	...	...	12.99	14.27	16.32	15.75	17.77	5.74	11.09	5.81
May	..	...	13.79	10.97	11.90	12.41	17.59	17.46	14.01	10.03
June	..	...	7.97	7.02	8.34	11.24	21.61	10.88	11.17	8.47
July	...	...	7.61	6.08	6.46	8.85	16.55	15.97	3.78	7.73
August	...	...	6.59	5.93	2.51	5.38	9.45	4.50	4.69	5.26
September	...	...	11.88	9.95	16.28	10.34	13.29	14.93	12.34	9.67
October	..	...	14.82	11.40	16.22	16.18	25.78	25.99	13.89	17.92
November	..	...	12.28	10.08	16.14	13.20	34.50	32.58	15.24	21.65
December	...	...	16.14	13.01	15.30	11.87	27.67	24.79	21.59	17.06
Total	..	...	147.27	123.75	144.10	146.86	242.10	206.56	126.00	136.75

REPORT MAP OF THE STATE OF BRUNEI 1937

Scale 12 Miles to 1 Inch

Miles 12 6 0 12 24 Miles



- REFERENCE**
- Metalled Road.....
 - Cart Track.....
 - State Boundary.....
 - District Boundary.....
 - District Name.....BELAIT
 - Residency.....Ry.
 - Govt. Offices.....G.O.
 - Palace of H.H.the Sultan.....IS.
 - Golf Course.....G.C.
 - Village Schools.....V.S.
 - European Rubber Estates.....
 - European Rubber Estates (area under Rubber).....
 - Native Holdings (Miscellaneous Cultivation).....
 - Forest Reserve Boundary.....
 - Police Stations.....P.S. W.S. C.
 - Wireless Customs.....

114° E. of Greenwich



